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April 30, 2010

Mr. William Sy EPA QA Officer for RAC 2 U.S. Environmental Protection Agency 2890 Woodbridge Avenue Edison, New Jersey 08837

PROJECT:

Region 2, RAC 2 Contract No.: EP-W-09-002

Work Assignment No.: 023-RARA-02PE

DOCUMENT No.:

3320-023-00411

SUBJECT:

Field Planning Meeting Agenda Remedial Action Field Program

Extraction and Monitoring Well Drilling

Old Roosevelt Field Contaminated Groundwater Area Site

Garden City, New York

Dear Mr. Sy:

CDM Federal Programs Corporation (CDM) is pleased to submit the Field Planning Meeting agenda with signatures for the Remedial Action Field Program, the Extraction and Monitoring Well Drilling phase at the Old Roosevelt Field Site in Garden City, New York. The field planning meeting was conducted on April 28, 2010.

If you have any questions regarding this submittal, please contact me at (212) 377-4536.

Very truly yours,

CDM FEDERAL PROGRAMS CORPORATION

Jeniffer Oxford

Regional QA Coordinator

Enclosure

cc: F. Rosado, EPA (Letter Only)

C. Kwan, EPA

L. Campbell, CDM

J. Litwin, CDM (Letter Only)

T. Mathew, CDM

RAC2 Document Control

CDM Federal Programs Corporation ATTENDANCE LIST

Program/Task: <u>Roosevel</u>	+ Field RA	
Subject of Training: Feld	Planning Meding	
Date/Time: April 28,4 10	^{ao} Am	
Location: Edison/NY	/Woodbury	
Instructor(s): Lisa Cau	upbell	
Attendees:		
Print Name	<u>Signature</u>	Affiliation (if other than CDM Federal)
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FRANK ROBINSON	By Phone	
MUZAFFAR RAHMAN, Thomas Mouthen	M.A. Calman. Thomas Muhens	
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Project Files

cc:

Field Planning Meeting RA Field Program: Extraction Well and Monitoring Well Drilling Old Roosevelt Field Contaminated Groundwater Site Garden City, New York April 28, 2010

INTRODUCTION

SITE BACKGROUND

The site is an area of groundwater contamination within the Village of Garden City in central Nassau County, New York. The site is located on the eastern side of Clinton Road, south of the intersection with Old Country Road, and includes the area of the former Roosevelt Field airfield (Figure 1). Chlorinated solvents, tetrachloroethene (PCE) and chloroethene (TCE) were used at the former Roosevelt Field airfield during and after World War II. Direct discharge of PCE and TCE to the ground surface, a common practice at that time, most likely resulted in the groundwater contamination.

The former Roosevelt Field airfield area is currently developed as a large retail shopping mall with a number of restaurants, and a movie theater. Several office buildings (including Garden City Plaza) are on the western perimeter of the mall and share parking space with the mall. A thin strip of open space along the eastern side of Clinton Road (known as Hazelhurst Park) serves as designated parkland and a buffer between the residential community on the west side of Clinton Road and the mall complex. Two municipal supply well fields are located south (downgradient) of the former airfield: the Village of Garden City public supply wells GWP-10 and GWP-11 on the eastern side of Clinton Road (Figure 1); the Garden City public supply wells are contaminated with PCE and TCE, and have been outfitted with air strippers. The Village of Hempstead Wellfield located approximately one mile south of the Garden City supply wells. Two recharge basins are directly south of the mall/office area. One basin is known as Pembrook Basin and is on property owned by the mall. The second basin is Nassau County Recharge Basin number 124.

The 2007 ROD selected groundwater extraction, ex situ treatment and discharge of treated water to Nassau County recharge basin #124 as the remedy. A performance based remedial design (RD) was completed in 2009. In the RD, sampling and analysis requirements were specified for the implementation of the remedial action.

FIELD PROGRAM OVERVIEW

- Objectives of Field Work: To install the extraction wells to implement the 2007 ROD pump and treat remedy. The three extraction wells are designed to capture the contaminant plume without significantly impacting the pumping capacity at Garden City wells. Six monitoring wells are designed to collect water level data for capture zone analysis.
- 2. Project Support Area: Roosevelt Field Mall Parking Lot at Ring Road South (south of Bus Depot) (see Figure 2)

Field Planning Meeting

RA Field Program: Extraction Well and Monitoring Well Drilling Old Roosevelt Field Contaminated Groundwater Site Garden City, New York April 28, 2010

3. Field Program

- a. Extraction Well Pilot Boring (see Appendix D of the QAPP)
 - The extraction well pilot boring will be sampled for lithologic description and grain size analysis in order to design the extraction well screen slot size and filter pack material.
 - Pilot borehole to 415 feet, advanced via mud rotary drilling methods
 - Lithologic split spoon samples:
 - ➤ 10-foot intervals from 0-200 feet bgs
 - > 5-foot intervals from 200-415 feet bgs
 - Grain size analytical samples:
 - ➤ 10-foot intervals from 210-410 feet bgs (18 samples)
 - > Samples will be biased toward finer grained material in a split spoon
 - ➤ Laboratory is subcontracted through the drilling subcontractor
 - Perform test borehole at the deepest extraction well location, backfill with gravel pack to the depth of outer casing and seal above that with cement-bentonite grout.
- b. Extraction Well Installation (see Appendix D of the QAPP)
 - Three extraction wells:
 - ➤ EW-1S total depth approximately 275 feet bgs
 - ➤ EW-1I total depth approximately 345 feet bgs
 - ➤ EW-1D- total depth approximately 415 feet bgs
 - 20-inch diameter borehole advanced via reverse circulation mud rotary drilling, and install a 16-inch diameter carbon steel casing to 80 feet bgs
 - 16-inch nominal diameter borehole through outer casing to depth
 - 8-inch diameter stainless steel well and screen; exact screen interval and filter pack material to be determined prior to installation, based on grain size analyses
 - 5-foot sump
 - Plumbness and alignment testing
 - Well development
- c. Monitoring Well Installation (see Appendix D of the QAPP)
 - Three monitoring well clusters:
 - ➤ MW-01S and MW-01I total depths approximately 246 feet and 316 feet bgs, respectively
 - ➤ MW-02S and MW-02I total depths approximately 246 feet and 316 feet bgs, respectively
 - ➤ MW-03S and MW-03I total depths approximately 244 feet and 314 feet bgs, respectively
 - 12-inch diameter borehole advanced via mud rotary drilling, and install an 8-inch diameter carbon steel casing to 80 feet bgs. 8-inch nominal diameter borehole through outer casing to depth
 - 4-inch diameter stainless steel well and 10-foot length of 0.010-slot well screen

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- 5-foot sump
- Plumbness and alignment testing
- Well development
- d) Extraction Well Groundwater Samples (next field planning meeting will cover this task)
 - Four sets of water quality samples will be collected by CDM from extraction wells.
 - The first set of samples will be collected from each extraction well at the completion of well development via low-flow purging and sampling methods. Samples will be analyzed for VOCs, total and dissolved iron and manganese.
 - The second set of samples will be collected from each extraction well at the conclusion of step testing from sampling port. Samples will be analyzed for VOCs, total and dissolved iron and manganese.
 - The third and fourth set of samples will be collected from each extraction well during the yield test (24-48 hours) and at the completion of yield test, respectively. Samples will be analyzed for TCL VOCs, total and dissolved metals, cyanide, TSS, TDS, hardness, alkalinity, oil and grease, and nitrate/nitrite.

4. IDW Management

- Drilling mud and cuttings will be transferred to 20-cubic yard rolloff containers staged at each well location; liquid will be pumped off and transferred to 21,000 stored at the staging area for waste characterization and off-site disposal
- Development water will be transferred to 21,000-gallon water tanks to be staged at the temporary treatment system area; water will then be treated with the using water treatment system provided by driller lower tier subcontractor (INTEX), and discharged to the local storm sewer. INTEX will collect effluent samples and analyzed for VOCs parameters and pH listed in the NYSPDES permit equivalent requirements. At minimum 12 effluent samples will be collected to monitor the effectiveness of the treatment system. At least one sample will be collected from the first batch of development water prior to any discharge. Subsequent samples will be collected every 200,000 gallons at a minimum. pH will be monitored once per day of discharge.
- PPE will be stored in 55- gallon drums

QA/QC

Applicable project documents:

- Draft RA QAPP April 2010
- Site Management Plan April 2010
- Final Remedial Design Drawings September 2009
- Health and Safety Plan April 2010
- Drilling Scope of Work January 2010
- IDW Scope of Work January 2010

Field Planning Meeting

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PROJECT ROLES AND RESPONSIBILITIES

1. EPA: Caroline Kwan, EPA RPM

2. CDM: Thomas Mathew, PM

Ali Rahmani, Project Engineer

Frank Robinson, FTL

3. Subcontractors

Drilling: Uni-Tech

Treatment System: INTEX (lower-tier subcontractor to driller)

IDW: SeaCoast Environmental

COMMUNICATION WITH STAKEHOLDERS/PROPERTY OWNERS/PUBLIC

- 1. State and Local Government Agencies
 - a. NY State Department of Environmental Conservation
 - b. NY State Department of Health (DOH)
 - c. Nassau County DOH
 - d. Village of Garden City
- 2. Property Owners
 - a. Village of Garden City (Frank Koch, Water Department)
 - b. Garden City Plaza (Charles Caccioppo)
 - e. Roosevelt Field Mall (George Montine)
- 3. General Public

<u>Dealing with public/media</u> - (1) Caroline Kwan (EPA RPM) will be the first to contact property owners about any issues concerning the site. She will also be the main contact for the public (2) Field team refers questions from public to the FTL. (3) With public, FTL briefly states what we are doing, and directs public to

(3) With public, FTL briefly states what we are doing, and directs public to Caroline Kwan for further information. With media, FTL directs reporters to Caroline Kwan.

NOTE: Under <u>NO CIRCUMSTANCES</u>, shall any member of the field team discuss site activities with the media.

4. Property Access – all access has been obtained by EPA

HEALTH AND SAFETY

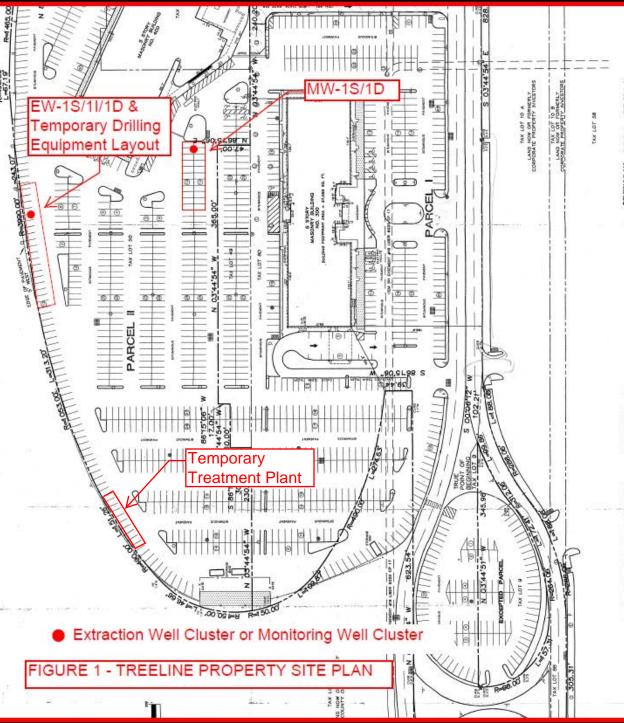
- 1. Level of Protection Level D
- 2. Contaminants and Hazards of Concern PCE, TCE; vehicular traffic; heavy machinery, slips/trips/falls
- 3. Health and Safety Instruments CGI, PID
- 4. OSHA required training documentation 40-hour OSHA, 8-hour refresher, Site Supervisor, First Aid/CPR
- 5. Hospital Route and Emergency Numbers see HASP
- 6. CDM Health and Safety (H&S) Program Manual

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- 7. H&S Plan and Material Safety Data Sheets
- 8. Contacts for H&S issues

SCHEDULE

- 1. Extraction well pilot boring
- 2. Monitoring wells
- 3. Extraction wells
- 4. Extraction well sampling (to be covered during a separate field planning meeting)
- 5. Aquifer test (to be covered during a separate field planning meeting)



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NOTES:

THIS DRAWING WAS CREATED WITH ORTHOPHOTOS DOWNLOADED FROM USGS, THE NATIONAL SEEMLESS SERVER AND GEOREFERENCED WITH BLOCK AND LOT INFORMATION FROM SURVEY FILE CREATED BY GEOD, NEWFOUNDLAND, NEW JERSEY, DATED APRIL 17, 2008.

THE CONTRACTOR SHALL INSTALL MONITORING WELLS IN ACCORDANCE WITH SECTION 02525 AND AS SHOWN ON SHEET B. THE MONITORING WELL LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERRIED PRIOR TO INSTALLATION.

IT IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF THE NEW YORK.
STATE EDUCATION LAW FOR ANY PERSON UNLESS ACTING UNDER THE
DIRECTION OF A LICENSED PROPERSYMMAL ENGINEER OR LAND SURVEYOR!

FINAL DESIGN

DEMETRIOS KLERIDES
PROFESSIONAL ENGINEER
NEW YORK LICENSE NO. 066129

DRAWN BY: D. WALDRON SHEET CHK'D BY: M. RAHMAN SUBMITTED BY: S. SCHOFFELD

CDM Federal Engineering of New York, P.C.

U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 2 **OLD ROOSEVELT FIELD** SUPERFUND SITE

EXISTING SITE CONDITIONS AND MONITORING WELLS

PROJECT NO. 3320-008 FILE NAME: ECPLPLAN.DWG SHEET NO.

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